

REMARKS

Applicant thanks the Examiner for the very thorough consideration given the present application.

Claims 7-17, 19 and 20 are now present in this application. Claims 7, 15, 17 and 20 are independent. Claims 17 and 19 have been amended. Reconsideration of this application, as amended, is respectfully requested.

Rejection Under 35 U.S.C. § 102

Claims 17 and 19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,904,779 to Dhindsa et al. (Dhindsa). This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

In the Examiner's Response to Arguments, it is asserted that the Examiner can consider the thickness of the insulating layer 210 as the distance between the substrate and the second electrode. The Applicant submits that while this distance may be taken in consideration as an afterthought (hindsight), neither the thickness of the insulating layer 210 or the distance between the array substrate and the second electrode is taken into consideration or included in any teaching as being chosen for the purpose of reducing an electrostatic attraction between the second electrode and the array substrate.

As the Applicant has stated, Dhindsa discloses that the sticking force increases when the substrate is lifted, i.e., when the distance is increased (Col.5, lines 14-35). Further, the sticking force of Dhindsa is used as an attraction after the substrate is lifted, while the electrostatic attraction is used as an attraction before the substrate is lifted.

Therefore, the Examiner's position is an afterthought, or improper hindsight. Dhindsa does not take the Applicant's claimed features into consideration in choosing a thickness of the insulating layer, or in choosing a pre-lifting distance between the array substrate and the second electrode.

Further, while not conceding to the appropriateness of the Examiner's rejection, the Applicant respectfully submits that independent claim 17 has been amended to recite a combination of elements in a method of processing a substrate for a liquid crystal display (LCD) device including, providing an intermediate material selected for having characteristics which do not lower a degree of vacuum, on the surface of the electrode plate; and positioning a substrate at a predetermined distance from the electrode plate to obtain an intermediate structure, wherein said positioning reduces electrostatic attraction between said substrate and said electrode plate prior to a lifting of said substrate.

The Examiner admits that Dhindsa does not teach the feature of an intermediate material selected for having characteristics which do not lower a degree of vacuum. Therefore (at the outset) the rejection under 35 U.S.C. § 102 is not proper.

Further, Kanno cannot be applied to make a future rejection under U.S.C. § 103. Particularly, the Examiner asserts that Kanno and the Applicant's claimed invention both use the same material (adhesive material) as an insulating layer. This is not so. Particularly, the Applicant's claim 17 recites an intermediate material. The feature of claim 17 is supported by the Applicant's specification. The specification recites that the preferred embodiment of the present invention shows the use of a tape, but any element that can increase distance between the substrate and the lower electrode without affecting the vacuum environment can be used (see Applicant's original specification, page 8, lines 8-12). Further, the Applicant's claimed material is contrasted with the conventional adhesive. Particularly, adhesives lower a degree of vacuum due to ingredients of a bonding agent (see Applicant's original specification, page 6, lines 21-24). The layer 36 of Kanno, cited by the Examiner, is an adhesive layer, and as such, inherently lowers a degree of vacuum.

Therefore the Examiner's position that Kanno discloses an adhesive tape, which is the same as an insulating tape, which is the same as a material that does not lower a degree of vacuum, does not hold. Kanno teaches away from the Applicant's claimed invention.

Both Dhindsa and Kanno fails to teach a combination of elements in a method of processing a substrate for a liquid crystal display (LCD) device, including providing an intermediate material selected for having characteristics which do not lower a degree of

vacuum, on the surface of the electrode plate; and positioning a substrate at a predetermined distance from the electrode plate to obtain an intermediate structure, wherein said positioning reduces electrostatic attraction between said substrate and said electrode plate prior to a lifting of said substrate, as recited in independent claim 17, as amended.

Claim 19 depends on claim 17, and therefore is patentable at least for the reasons stated with respect to independent claim 17. Reconsideration and withdrawal of this art grounds of rejection is respectfully requested.

Rejections under 35 U.S.C. §103

Claims 7-10, 12, and 14-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dhindsa in view of U.S. Patent No. 6,243,251 to Kanno, and further in view of U.S. Patent No. 6,096,572 to Nakamura. Claim 11 stands rejected over Dhindsa, Kanno and Nakamura, as applied to claim 7, and further in view of U.S. Patent No. 5,874,361 to Collins et al. (Collins). Claim 13 stands rejected over Dhindsa, Kanno and Nakamura, as applied to claim 7, and further in view of U.S. Patent No. 5,985,104 to Westwood. Claim 20 stand rejected over Dhindsa in view of Kanno. These rejections are respectfully traversed.

The Examiner admits that Dhindsa (argued above with respect to independent claims 17) fails to teach a combination of elements in a method of processing a substrate

for a liquid crystal display (LCD) device, including providing an intermediate material selected for having characteristics which do not lower a degree of vacuum, on the surface of the electrode plate. The Examiner relies on Kanno to fill the deficiency of Dhindsa.

The Applicant submits that the arguments provided above also apply to independent claims 7, 15 and 20. With respect to claim 20, an intermediate material which does not lower a degree of vacuum, is already recited therein (in claim 20). Clearly, the adhesive layer 36 of Kanno is not an equivalent of an intermediate material based on the associations provided by the Examiner.

With regard to claims 7 and 15, the Applicant has shown above that adhesive tapes inherently lower a vacuum degree due to ingredients of a bonding agent (see Applicant's original specification, page 6, lines 21-24). Therefore, the layer 36 of Kanno would inherently lower a degree of vacuum because Kanno clearly identifies the layer as "adhesive". Therefore, Kanno teaches away from the Applicant's insulating tape or intermediate material.

Clearly then, Kanno, like Dhindsa, fails to disclose or suggest a combination of elements in method for preventing an array substrate from being damaged due to an electrostatic force after a dry etching process, including said insulating tape is selected for having characteristics which do not lower a degree of vacuum, said insulating tape distancing the array substrate and the second electrode such that the distance reduces an electrostatic attraction between the second electrode and the array substrate prior to a

lifting of the array substrate, as recited in independent claim 7, and similarly stated in independent claims 15 and 20. Neither Kanno, nor Nakamura, nor Collins, nor Westwood can fill this vacancy.

Claims 8-14 and 16 depend, either directly or indirectly on independent claims 7 and 15. Since neither Dhindsa, nor Collins, nor Nakamura, nor Westwood discloses or suggests the above-recited features of independent claims 7 and 15, none of the combinations applied by the Examiner can render claims 7-16 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of these art grounds of rejection are respectfully requested.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Percy L. Square, Registration No. 51,084, at (703) 205-8034, in the Washington, D.C. area.

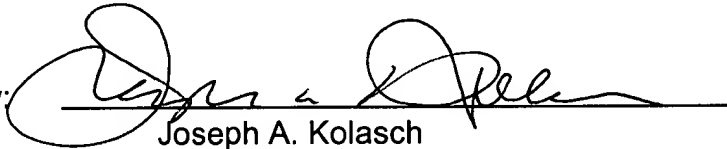
Prompt and favorable action on this Request for Reconsideration is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By:



Joseph A. Kolasch

Reg. No.: 22,463

P.O. Box 747

Falls Church, Virginia 22040-0747

Telephone: (703)205-8000


JAK/PLS/asc/slb/mlr